

10/540539

SEQUENCE LISTING

JC17 Rec'd PCT/PTO 24 JUN 2005

<110> ZHOU, Rouli
SHAO, Genze
LIU, Xinrong
ZHANG, Qingyun
RUI, Jingan
ZHANG, Ye
JIN, Yueying
LIN, Ming
ZHANG, Sha

<120> HUMAN CANCER-RELATED GENE, ITS ENCODED PRODUCTS AND APPLICATIONS

<130> 062331-5002-US

<150> PCT/CN2003/001109

<151> 2003-12-24

<150> CN 03109786.3

<151> 2003-04-21

<150> CN 02158110.X

<151> 2002-12-24

<160> 8

<170> PatentIn version 3.3

<210> 1
<211> 954
<212> DNA
<213> Homo sapiens

<400> 1
atgacgtcac ggactcgggt cacatggccg agtccgcccc gccccctccc cgtccccgcc 60
gctgcagccg tcgccttcgg agcgaagggt accgaccggc cagaagctcg gagctctcgg 120
ggtatcgagg aggcaaggccc gcgggcgcac gggcgagcgg gccgggagcc ggagcggcgg 180
aggagccggc agcagcggcg cggcgggctc cagggcggcggc ggtcgacgct cctgaaaact 240
tgcgcgcgcg ctcgcgccac tgcgccccga gcgatgaaga tggtcgcgcc ctggacgcgg 300
ttctactcca acagctgctg cttgtgctgc catgtccgca ccggcaccat cctgctcggc 360
gtctggtatac tgatcatcaa tgctgtggta ctgttgattt tattgagtg cctggctgat 420
ccggatcagt ataacttttc aagttctgaa ctgggaggtg actttgagtt catggatgat 480
gccaacatgt gcattgccat tgcgatttct cttctcatga tcctgatatg tgctatggct 540
acttacggag cgtacaagca acgcgcagcc tggatcatcc cattttctg ttaccagatc 600
tttgacttttgc ccctgaacat gttggttgca atcactgtgc ttatattatcc aaactccatt 660

caggaataca tacggcaact gcctcctaat tttccctaca gagatgatgt catgtcagtg 720

aatcctacct gtttggcct tattattctt ctgttatttta gcattatctt gacttttaag 780

ggttacttga ttagctgtgt ttggaactgc taccgataca tcaatggtag gaactcctct 840

gatgtcctgg tttatgttac cagcaatgac actacggtgc tgctacccccc gtatgatgat 900

gccactgtga atggtgctgc caaggagcca ccggcacctt acgtgtctgc ctaa 954

<210> 2

<211> 1440

<212> DNA

<213> Homo sapiens

<400> 2

gccgactagg ggactggcgg agggtgcacg ctgatggatt tactcaccgg gtgcttggag 60

ctccagcagc tggctggagc ccgcgatgac gtcacggact cgggtcacat ggccgagtcc 120

gccccgcccc ctccccgtcc ccgcccgtgc agccgtcgcc ttcggagcga aggtaaccga 180

cccgccagaa gctcgagct ctcggggat cgaggaggca ggcccgcggg cgcacggcgc 240

agcggggccgg gagccggagc ggcggaggag ccggcagcag cggcgcggcgc ggctccaggc 300

gaggcggctcg acgctcctga aaacttgcgc gcgcgctcgc gccactgcgc ccggagcgat 360

gaagatggtc gcgcctgga cgcggttcta ctccaacagc tgctgcttgt gctgccatgt 420

ccgcaccggc accatcctgc tcggcgtctg gatatctgatc atcaatgctg tggtaactgtt 480

gattttattt agtgccctgg ctgatccgga tcagtataac ttttcaagtt ctgaactggg 540

aggtgacttt gagttcatgg atgatgccaa catgtgcatt gccattgcga tttctttct 600

catgatcctg atatgtgcta tggctactta cggagcgtac aagcaacgcg cagcctggat 660

catcccattc ttctgttacc agatcttga ctttgcctg aacatgttgg ttgcaatcac 720

tgtgcttatt tatccaaact ccattcagga atacatacgg caactgcctc ctaatttcc 780

ctacagagat gatgtcatgt cagtgaatcc tacctgttg gtccttatta ttcttctgtt 840

tattagcatt atcttgcatt ttaagggtta cttgattagc tgtgtttgga actgctaccg 900

atacatcaat ggttaggaact cctctgatgt cctgggttat gttaccagca atgacactac 960

ggtgctgcta ccccgatcg atgatgccac tgtgaatggt gctgccaagg agccaccgcc 1020

accttacgtg tctgcctaag cttcaagtg ggcggagctg agggcagcag cttgactttg 1080

cagacatctg agcaatagtt ctgttatttc actttgccca tgagcctctc tgagcttgg 1140

tgttgctgaa atgctacttt ttaaaatatta gatgttagat tgaaaactgt agtttcaac 1200

atatgcttg ctggaacact gtgatagatt aactgttagaa ttcttcctgt acgattgggg 1260

atataatggg cttcactaac cttccctagg cattgaaact tcccccaat ctgatggacc 1320

tagaagtctg ctttgtacc tgctgggcccaaaagttggg cattttctc tctgttccct 1380

ctctttgaa aatgtaaaat aaaaccaaaa atagaccaaa aaaaaaaaaa aaaaaaaaaa 1440

<210> 3

<211> 2169

<212> DNA

<213> Homo sapiens

<400> 3

gccgactagg ggactggcgg agggtgcacg ctgatggatt tactcaccgg gtgcttggag 60

ctccagcagc tggctggagc ccgcgatgac gtcacggact cgggtcacat ggccgagtcc 120

gccccgcccc ctccccgtcc cgcgcgtgc agccgtcgcc ttccggagcga agggtaccga 180

cccgccagaa gctcggagct ctcgggtat cgaggaggca ggcccgccgg cgcacggcgc 240

agcggggccgg gagccggagc ggcggaggag ccggcagcag cggcgcggcgc ggctccagggc 300

gaggcggtcg acgctcctga aaacttgcgc ggcgcgtcgc gccactgcgc ccggagcgt 360

gaagatggtc gcgcctgga cgcggttcta ctccaacagc tgctgcttgt gctgccatgt 420
ccgcaccggc accatcctgc tcggcgtctg gatatctgatc atcaatgctg tggtaactgtt 480
gattttattt agtgccctgg ctgatccgga tcagttataac ttttcaagtt ctgaactggg 540
aggtgacttt gagttcatgg atgatgccaa catgtgcatt gccattgcga tttctttct 600
catgatcctg atatgtgcta tggctactta cggagcgtac aagcaacgcg cagcctggat 660
catcccattt ttctgttacc agatcttta ctttgcctg aacatgttgg ttgcaatcac 720
tgtgcttattt tatccaaactt ccattcagga atacatacgg caactgcctc ctaattttcc 780
ctacagagat gatgtcatgt cagtgaatcc tacctgtttg gtccttattt ttcttctgtt 840
tattagcattt atcttgactt ttaagggtta cttgatttgc tgtgttttgg actgctaccg 900
atacatcaat ggttaggaact cctctgatgt cctggtttat gttaccagca atgacactac 960
ggtgctgcta cccccgtatg atgatgccac tgtgaatggt gctgccaagg agccaccggcc 1020
accttacgtg tctgcctaag cttcaagtg ggcggagctg agggcagcag cttgactttg 1080
cagacatctg agcaatagtt ctgttatttc acttttgcctc tgagcctctc tgagcttgg 1140
tgttgctgaa atgctacttt ttaaaattta gatgttagat tgaaaactgt agtttcaac 1200

atatgcttg ctggaacact gtgatagatt aactgttagaa ttcttcctgt acgattgggg 1260

atataatggg cttcactaac cttccctagg cattgaaact tcccccaaat ctgatggacc 1320

tagaagtctg cttttgtacc tgctgggcccaaaagttggg cattttctc tctgtccct 1380

ctctttgaa aatgtaaaat aaaaccaaaa atagacaact ttttcttcag ccattccagc 1440

atagagaaca aaaccttatg gaaacaggaa tgtcaattgt gtaatcattt ttcttaattt 1500

gttaaatagaa gtccttatgt atgtgttaca agaatttccc ccacaacatc ctttatgact 1560

gaagttcaat gacagtttgt gtttgggtggtaaaggatttt ctccatggcc tgaattaaga 1620

ccattagaaa gcaccaggcc gtgggagcag tgaccatctg ctgactgttc ttgtggatct 1680

tgtgtccagg gacatgggggt gacatgcctc gtatgttta gagggtggaa tggatgtt 1740

tggcgctgca tgggatctgg tgccctctt ctcctggatt cacatccccca cccagggcc 1800

gttttacta agtgttctgc cctagattgg ttcaaggagg tcatccaact gactttatcg 1860

agtggaaattt ggttatattt gatatacttc tgcctaaca catggaaaag ggttttcttt 1920

tccctgcaag ctacatccta ctgcttgaa cttccaagta tgtctagtca cctttaaaa 1980

tgtaaacatt ttcagaaaaa tgaggattgc cttccttgc tgcgctttt accttgacta 2040

cctgaattgc aagggatttt tatatatattca tatgttacaa agtcagcaac ttcctgttg 2100

gttcatttattt gaatgtgctg taaattaagt tgtttgcattt taaaacaagg tttgccac 2160

aaaaaaaaaa 2169

<210> 4

<211> 317

<212> PRT

<213> Homo sapiens

<400> 4

Met Thr Ser Arg Thr Arg Val Thr Trp Pro Ser Pro Pro Arg Pro Leu

1 5 10 15

Pro Val Pro Ala Ala Ala Ala Val Ala Phe Gly Ala Lys Gly Thr Asp

20 25 30

Pro Ala Glu Ala Arg Ser Ser Arg Gly Ile Glu Glu Ala Gly Pro Arg

35 40 45

Ala His Gly Arg Ala Gly Arg Glu Pro Glu Arg Arg Ser Arg Gln

50 55 60

Gln Arg Arg Gly Gly Leu Gln Ala Arg Arg Ser Thr Leu Leu Lys Thr

65 70 75 80

Cys Ala Arg Ala Arg Ala Thr Ala Pro Gly Ala Met Lys Met Val Ala

85 90 95

Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val

100 105 110

Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala

115 120 125

Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr

130 135 140

Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp

145 150 155 160

Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile

165

170

175

Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Trp Ile

180

185

190

Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu

195

200

205

Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile

210

215

220

Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp Asp Val Met Ser Val

225

230

235

240

Asn Pro Thr Cys Leu Val Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile

245

250

255

Leu Thr Phe Lys Gly Tyr Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg

260

265

270

Tyr Ile Asn Gly Arg Asn Ser Ser Asp Val Leu Val Tyr Val Thr Ser

275

280

285

Asn Asp Thr Thr Val Leu Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn

290

295

300

Gly Ala Ala Lys Glu Pro Pro Pro Pro Tyr Val Ser Ala

305

310

315

<210> 5

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5

Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys

1

5

10

15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr

20

25

30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala

35

40

45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe

50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu

65 70 75 80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln

85 90 95

Arg Ala Ala Trp Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe

100 105 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser

115 120 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp

130 135 140

Asp Val Met Ser Val Asn Pro Thr Cys Leu Val Leu Ile Ile Leu Leu

145 150 155 160

Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr Leu Ile Ser Cys Val

165

170

175

Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn Ser Ser Asp Val Leu

180

185

190

Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu Leu Pro Pro Tyr Asp

195

200

205

Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro Pro Pro Pro Tyr Val

210

215

220

Ser Ala

225

<210> 6

<211> 2264

<212> DNA

<213> Homo sapiens

<400> 6

gaatctcgac ctttgaatgg agttacacga acggccagat gaaagaagga aggcccggac 60

ctccactcag ggccgactag gggactggcg gagggtgcac gctgatggat ttactcaccg 120

ggtgcttggaa gctccagcag ctgcttggag ctccagcagc tggctggagc ccgcgatgac 180

gtcacggact cgggtcacat ggccgagtcc gccccggccc ctccccgtcc ccgcccgtgc 240

agccgtcgcc ttcggagcga agggtaccga cccggcagaa gctcggagct ctcgggtat 300

cgaggaggca ggcccgcggg cgcacggcg agcgggcccgg gagccggagc ggccggaggag 360

ccggcagcag cggcgccggcg ggctccaggc gagggcggtcg acgctcctga aaacttgcgc 420

gcgcgctcgc gccactgcgc ccggagcgt gaagatggtc gcgccttggaa cgccgttcta 480

ctccaacagc tgctgcttgt gctgccatgt ccgcaccggc accatcctgc tcggcgtctg 540

gtatctgatc atcaatgctg tggtaactgtt gattttattt agtgccttgg ctgatccgaa 600

tcagtataac ttttcaagtt ctgaactggg aggtgacttt gagttcatgg atgatgccaa 660

catgtgcatt gccattgcga tttctttct catgatcctg atatgtgcta tggctactta 720

cgagacgtac aagcaacgcg cagcctggat catcccatc ttctgttacc agatcttga 780

ctttgccttgc aacatgttgg ttgcaatcac tgtgcttatt tatccaaact ccattcagga 840

atacatacgg caactgcctc ctaatttcc ctacagagat gatgtcatgt cagtgaatcc 900

tacctgtttg gtccttatta ttcttctgtt tattagcatt atcttgactt ttaagggtta 960

cttgattagc tgtgtttgga actgctacccg atacatcaat ggttaggaact cctctgatgt 1020

cctggtttat gttaccagca atgacactac ggtgctgcta cccccgtatg atgatgccac 1080

tgtgaatggg gctgccaagg agccaccgccc accttacgtg tctgcctaag cttcaagtg 1140

ggcggagctg agggcagcag cttgactttg cagacatctg agcaatagtt ctgttatttc 1200

acttttgcctt tgagcctctc tgagcttggtt tgttgctgaa atgctacttt taaaattta 1260

gatgttagat tgaaaactgt agtttcaac atatgctttg ctgaaacact gtgatagatt 1320

aactgtagaa ttcttcgtt acgattgggg atataatggg cttcaactaac cttccctagg 1380

cattgaaact tcccccaat ctgatggacc tagaagtctg cttttgtacc tgctgggccc 1440

caaagttggg cattttctc tctgttcctt ctctttgaa aatgtaaaat aaaaccaaaa 1500

atagacaact ttttcttcag ccattccagc atagagaaca aaaccttatg gaaacaggaa 1560

tgtcaattgt gtaatcattt gttcaattttt gtaaatagaa gtccttatgt atgtgttaca 1620

agaatttccc ccacaacatc ctttatgact gaagttcaat gacagtttgt gttgggtgg 1680

aaaggatttt ctccatggcc tgaattaaga ccattagaaa gcaccaggcc gtgggagcag	1740
tgaccatctg ctgactgttc ttgtggatct tgtgtccagg gacatggggt gacatgcctc	1800
gtatgtgtta gagggtggaa tggatgttt tggcgctgca tggatctgg tgccctctt	1860
ctcctggatt cacatccccca cccagggccc gctttacta agtgttctgc cctagattgg	1920
ttcaaggagg tcataccaact gactttatcg agtggattt ggatataattt gatataacttc	1980
tgcctaacaa catggaaaag gttttcttt tccctgcaag ctacatccta ctgcttgaa	2040
cttccaagta tgtctagtca cttttaaaaa tgtaaacatt ttcagaaaaaa tgaggattgc	2100
cttccttgta tgcgctttt accttgacta cctgaattgc aaggatttt tatatattca	2160
tatgttacaa agtcagcaac tctcctgttg gttcatttattt gaatgtgctg taaattaagt	2220
tgtttgcaat taaaacaagg tttgcccaca aaaaaaaaaa aaaa	2264

<210> 7

<211> 370

<212> PRT

<213> Homo sapiens

<400> 7

Met Glu Leu His Glu Arg Pro Asp Glu Arg Arg Lys Ala Arg Thr Ser

1

5

10

15

Thr Gln Gly Arg Leu Gly Asp Trp Arg Arg Val His Ala Asp Gly Phe

20

25

30

Thr His Arg Val Leu Gly Ala Pro Ala Ala Ala Trp Ser Ser Ser Ser

35

40

45

Trp Leu Glu Pro Ala Met Thr Ser Arg Thr Arg Val Thr Trp Pro Ser

50

55

60

Pro Pro Arg Pro Leu Pro Val Pro Ala Ala Ala Ala Val Ala Phe Gly

65

70

75

80

Ala Lys Gly Thr Asp Pro Ala Glu Ala Arg Ser Ser Arg Gly Ile Glu

85

90

95

Glu Ala Gly Pro Arg Ala His Gly Arg Ala Gly Arg Glu Pro Glu Arg

100

105

110

Arg Arg Ser Arg Gln Gln Arg Arg Gly Gly Leu Gln Ala Arg Arg Ser

115

120

125

Thr Leu Leu Lys Thr Cys Ala Arg Ala Arg Ala Thr Ala Pro Gly Ala

130

135

140

Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys

145

150

155

160

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr

165

170

175

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala

180

185

190

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe

195

200

205

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu

210

215

220

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln

225

230

235

240

Arg Ala Ala Trp Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe

245

250

255

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser

260

265

270

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp

275

280

285

Asp Val Met Ser Val Asn Pro Thr Cys Leu Val Leu Ile Ile Leu Leu

290

295

300

Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr Leu Ile Ser Cys Val

305

310

315

320

Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn Ser Ser Asp Val Leu

325

330

335

Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu Leu Pro Pro Tyr Asp

340

345

350

Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro Pro Pro Pro Tyr Val

355

360

365

Ser Ala

370

<210> 8

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 8

gctccaggtg gaagagtgtg cagctgcaag atttaataga gtgaaaacag ctcccataca 60

gtgggcgggg acccaaaggg gttgcccac tcccgctgg aatgcctgg gtttatatcc 120

caatcattgt ccctccccct gtgctctag atgatagatg atttgactat ttcttacct 180

cttgctttta gcttaattgg tgtttagtg agccctttt actacctgat tggcaggtg 240

tgagctgagt tacaagcccc atgttaagg gtgggtgcgg tcccctcccc caggttaggtt 300

taggaattct tagtcgcccc agaaatccg ctactcttgt ctctcaactgg gattacaggc 360
gtgagccacc gcgcccagcc aattttggta tttttttag agccagggtt tcgccatgtt 420
gcccaggctg ggactgaatc ttagagctg cactcatgtat aaaaacgct gtgccaggcg 480
ttgtggctca cgcctgtaat cccagcactt tgggaggctg aggcgggcgg atcacgaggt 540
cagaagatcg agaccatcct ggctaacacg gtgaaacccc gtctctactg aaaatacaac 600
aaatttagcca ggcgtgggtgg cgggcgcctg tagtcccagc tactagggag gctgaggcag 660
gagaatggcg tgaacccggg aggtggagct tgcaagtggc cgagatcgca ccactgcact 720
ccagcctggg tgacagagca agactctgtc tcaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 780
agctaccggga agcacagcga ggtatgtcctt gacacacatc ctattttctg ggaaaagatt 840
actaccacag taattttagct gtgaagcgga gacaaattgc tctcggtggt ggttcaaagt 900
actgcaattt gactggaaatag caccgcgcag ttttccttcc tctcgtgcaa gataagagtg 960
ataggagctg tatcgattac ctgcaagata gaagtagaaag cggggccgggt gcgggtggctc 1020
acgcctgtaa tcccagcact ttgggaggct gaggcggtg gatcattcga cgtcaggagt 1080
tccagaccag cctgaccaac atggtgaaac cccgtctcta ctaaaaaatac aacaaattag 1140

ccgggtgtgg tggcaagcgc ctgtaatccc agctactcggttgggc aggagaatcg 1200

cttgaacccg ggaggcggag gttgcagtga gccgagatcg cgccattgca ctccagcctg 1260

ggcgacaaga gcgagactct gtctaaaaaaaaaaaaaaaaaaaaa agaagtagaa ggaaagaaaa 1320

tcgcaaggaa ctagactaaa a 1341